



**US Army Corps  
of Engineers®**

Engineer Research and  
Development Center

**Product**

## ike™ 304

### Technology

The ike™ 304 is a ruggedized, hand-held device for collecting geospatial data with digital instrumentation. It is a product of a Cooperative Research and Development Agreement (CRADA) between the Construction Engineering Research Laboratory (CERL) and Surveylab, Ltd. The product seamlessly integrates and synchronizes a global positioning system (GPS), laser distance meter, digital camera, compass, inclinometer, geographical information system (GIS), and personal digital assistant (PDA) computer. These developments allow users to quickly capture a rich array of geospatial and attribute data, annotated with images and text, e.g., capture and review a target position and photo, add attribute data to the feature, review and add photos, and view the new feature on a map. The instrument's database stores and shares data, and its automated GIS-based system facilitates data analysis, interpretation, and reporting.

### Problem

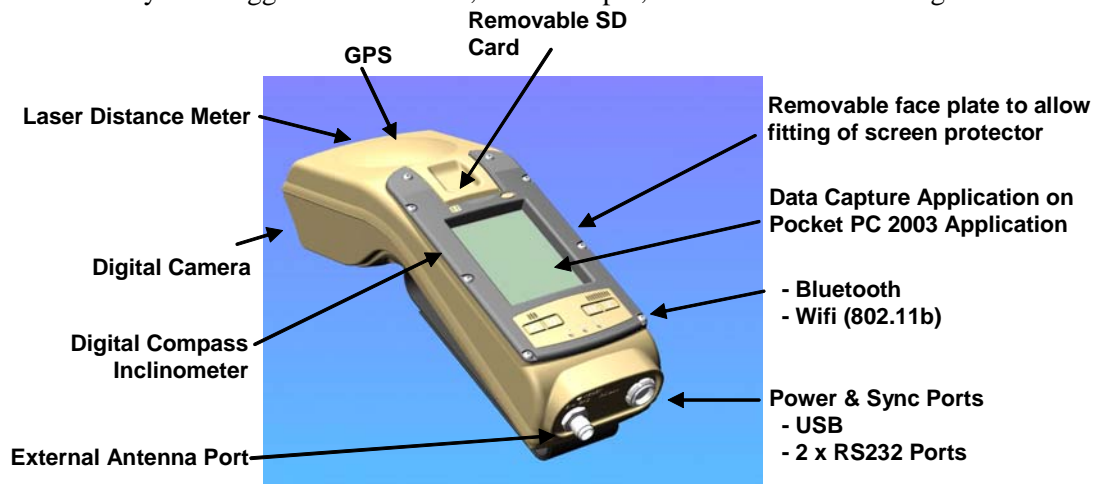
Acquiring terrain/environmental data and effectively integrating it into asset management, operations, and decisionmaking is one of the biggest issues facing military managers, whether they are managing a civil works program, a Department of Defense installation, or a deployed base camp. Accurate terrain knowledge—the precise location of features on the landscape and their geospatial relationship to each other—is key to understanding and maximizing the operational environment. Conventional methods are labor intensive, costly, and often produce inconsistent data (i.e., use non-standardized data collection methods). Alternative automated approaches involve numerous steps and technologies that have not been seamlessly integrated.

### Expected Cost To Implement

Contact the vendor (listed below as the “Distribution Source” for current price. It requires *ArcPad*, a mobile GIS and field mapping application, available from [Environmental Systems Research Institute, Inc. \(ESRI\)](http://www.esri.com). An *ArcPad* single-user (government) license costs \$404; multiple users price discounts are available.

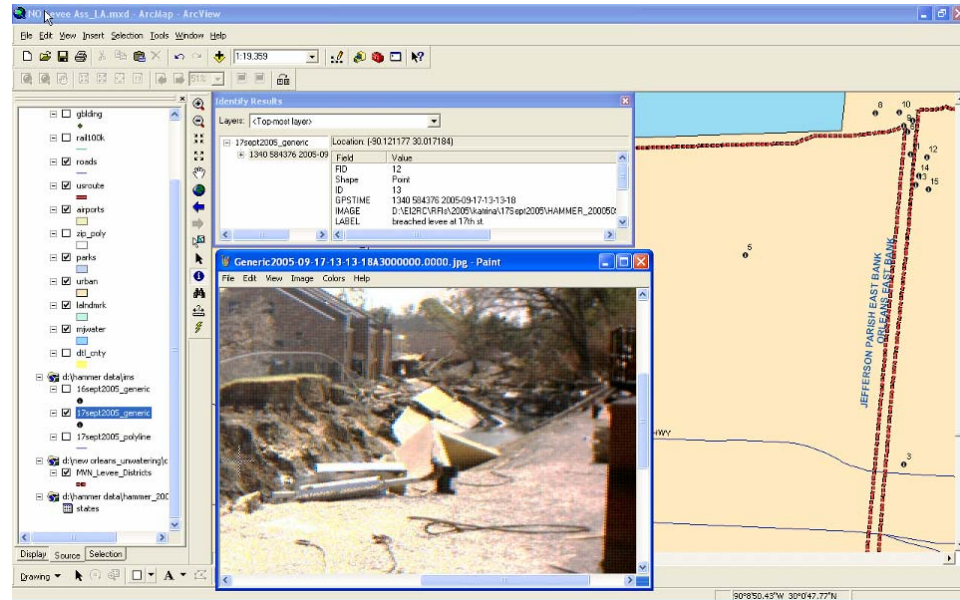
### Benefits/Savings

Users benefit from the instrument's compact size, user-friendly design and interface, and integrated digital technologies, required in today's field applications. The logic of the CERL-developed business process, combined with the portability and functionality of Surveylab's ruggedized hardware, enables rapid, accurate decisionmaking.



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The ike™ 304 uses criteria-driven forms to collect objective data *digitally*, so users can make decisions and take remedial actions in the field. The product continues to fulfill its original design intention—to record and map natural and cultural resources for asset management on military installations—and has extended its utility to many other field applications. The Corps is using this technology to conduct vulnerability assessments for homeland security via the Access Control Point Program (ACPP) for military installations. Immediately following Hurricane Katrina, the instrument was used by Task Force Guardian to triage the condition of the flood protection structures and prioritize rebuilding efforts.



**Corps of Engineers Field Engineering Support Team (FEST) crews used ike™ in New Orleans to collect data on flood-related damage following Hurricane Katrina.**

#### Status

ERDC-CERL has granted a patent license to its industry partner, Surveylab Ltd., to integrate the Corps' technology with the ike™ 304, which is commercially available through the listed distribution source.

#### ERDC POC

Tad Britt, Researcher, CERL, P.O. Box 9005, Champaign, IL, 61826-9005. Phone: 217-373-7288, Fax: 217-737-7222, e-mail: [Tad.Britt@erdc.usace.army.mil](mailto:Tad.Britt@erdc.usace.army.mil)

#### Distribution Source

Within the United States, the ike™ 304 is sold and distributed by:

Surveylab USA, Inc.	tel: (703) 883-0520
ATTN: Jeffrey Stewart	FAX: (703) 883-0108
Suite 400	Cell: (703) 981-9127
1750 Tysons Blvd.	e-mail: <a href="mailto:Jeffrey.Stewart@survey-lab.com">Jeffrey.Stewart@survey-lab.com</a>
Maclean, VA 22102	

#### Available Documentation

The Surveylab website provides downloadable user documentation and other technical information through URL: <http://www.surveylab.co.nz/Downloads.html>

#### Available Training

Skilled use of the ike™ 304 is most often acquired through self-directed training using online manuals. Government users may also request classroom or field training, on a reimbursable basis, through the listed ERDC POC.

#### Available Support

Online support is available through the Surveylab website at URL: <http://www.surveylab.co.nz/>